Session Program

25–29 May 2026

28th Conference on Computing in High Energy and Nuclear Physics (CHEP 2026)

Track 9 - Analysis software and workflows

Chulalongkorn University

Monday 25 May

13:45

Track 9 - Analysis software and workflows

Session | **Location:** Chulalongkorn University

13:45–14:03 **New Developments in ROOT's RDataFrame**

Speaker
Stephan Hageboeck

14:03–14:21 **Coffea Framework: Current Status, Recent Updates, and Community Impact**

Speaker
Iason Krommydas

14:21–14:39 **MC-Run: Scalable MC event generation and Rivet analysis**

Speaker
Cedric Verstege

14:39–14:57 **Declarative paradigms for analysis description and implementation - a demonstrator for High Energy Physics**

Speaker
Paolo Mastrandrea

14:57–15:15 **SMOCS - JLab’s Streaming Monitoring Optimization Control System**

Speaker
Torri Jeske

15:15

16:15

Track 9 - Analysis software and workflows

Session | **Location:** Chulalongkorn University

16:15–16:33 **Particle physics data analysis on the GPU: from IO to data reduction**

Speaker
Lukas Breitwieser

16:33–16:51 **Bridging the Vendor Gap: Enabling AMD GPU Support for Awkward Array via ROCm/HIP for the HL-LHC Era**

Speaker
Ianna Osborne

16:51–17:09 **GPU acceleration of end-user analyses at the LHC**

Speaker
Ianna Osborne

17:09–17:27 **Flare: an open source data workflow orchestration tool**

Speaker
Cameron Harris

17:27–17:45 **b2luigi - bringing batch 2 luigi**

Speaker
Alexander Heidelbach

17:45–18:03
Reproducible and Modular Analysis Workflows in High-Energy Physics: Concepts and Implementation of a Code-Centric Approach

Speaker
Maximilian Horzela

18:03

Tuesday 26 May

13:45

Track 9 - Analysis software and workflows

Session | **Location:** Chulalongkorn University

13:45–14:03 **Enabling distributed analysis for ALICE in Run 3**

Speaker
Nicolas Poffley

14:03–14:21
The Full Event Interpretation Algorithm at Belle II: Current Status and Developments

Speaker
Dr Rahul Tiwary

14:21–14:39 **Evaluating ROOT RNTuple for Physics Analysis Workflows in ATLAS**

Speaker
Alaettin Serhan Mete

14:39–14:57 **CMS Analysis Frameworks**

Speaker
Khawla Jaffel

14:57–15:15
FCCAnalyses: A Core Component of the Emerging Analysis Ecosystem for FCC

Speaker
Juraj Smiesko

15:15

16:15

Track 9 - Analysis software and workflows

Session | **Location:** Chulalongkorn University

16:15–16:33
Optimizations and New Strategies for Native ROOT Data Loading for ML

Speaker
Silia Taider

16:33–16:51 **ML-based Flavour Tagging for LHCb Run 3**

Speaker
Borja Sevilla Sanjuan

16:51–17:09
Measurement of Quantum Correlations in $Z \to \tau^+\tau^-$ at DELPHI Using Machine Learning

Speaker
Ting-Hsiang Hsu

17:09–17:27 **Foundation Model for Physics Analysis at BESIII**

Speaker
Jingde Chen

17:27–17:45

Re-discovery of $Z_c(3900)$ at BESIII Based on Quantum Support Vector Machine (QSVM)

Speaker
Siyang Wu

17:45–18:03

Future-Ready Restoration: A Case Study on AI RAG-Enhanced Agentic Revival of a Run-2 2016 Λb → Λγ Analysis

Speaker
Cilicia Uzziel Perez

18:03

Wednesday 27 May

13:45

Track 9 - Analysis software and workflows

Session | **Location:** Chulalongkorn University

13:45–14:03 **A study of CMS analysis pipelines through the Integration Challenge**

Speakers
Mohamed Aly, Oksana Shadura

14:03–14:21
The ATLAS Integration Challenge: studying physics analyses towards the HL-LHC

Speakers
Alexander Held, Artur Cordeiro Oudot Choi

14:21–14:39
ServiceX in the ATLAS Integration Challenge: Data Delivery for HL-LHC Analyses

Speaker
Artur Cordeiro Oudot Choi

14:39–14:57
Data Processing Challenges and Framework Solutions at the High Energy Photon Source

Speaker
Dr Yu Hu

14:57–15:15
Framework for vectorized computations for the Final Daya Bay data release

Speaker
Dr Maxim Gonchar

15:15

16:15

Track 9 - Analysis software and workflows

Session | **Location:** Chulalongkorn University

16:15–16:33 **ROOT’s New Histograms**

Speaker
Jonas Hahnfeld

16:33–16:51 **Histogramming as a Service**

Speaker
Manfred Peter Fackeldey

16:51–17:09 **Harnessing JAX for a Differentiable Analysis Setup**

Speaker
Felix Philipp Zinn

17:09–17:27 **Doppio: Differentiable Optimization for Pair Peak Identification**

Speaker
Andrzej Novak

17:27–17:45

GRAEP: A framework for smart gradient-based optimization of HEP analyses

Speakers
Lino Oscar Gerlach, Mohamed Aly

17:45–18:03 **The latest developments of Combine tool**

Speaker
Tom Runting

18:03

Thursday 28 May

13:45

Track 9 - Analysis software and workflows

Session | **Location:** Chulalongkorn University

13:45–14:03

Leveraging Neural Simulation-Based Inference for an EFT Analysis in CMS

Speaker
Eddie Mcgrady

14:03–14:21

Neural Simulation-Based Inference at the LHC

Speaker
Jay Ajitbhai Sandesara

14:21–14:39

Simulation-Based Inference (SBI) in Precision Physics

Speaker
Ethan Lee

14:39–14:57

Differentiable Simulation-Based Inference in RooFit with Neural Surrogates

Speaker
Jonas Rembser

14:57–15:15

NEEDLE: A Columnar Workflow Orchestrator for Large-Scale Neural Simulation-Based Inference in HEP

Speaker
Kylian Schmidt

15:15

16:15

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16:15–16:33

ROOT 7: Getting Ready for HL-LHC

Speaker
Stephan Hageboeck

16:33–16:51

ROOT's new Python Interfaces based on CppInterOp: Performance, Correctness, and Future-Proof Design

Speaker
Aaron Jomy

16:51–17:09

Enhancing LLM for HEP code generation

Speaker
Yue Sun

17:09–17:27

From Query to Plot: Implementing a Tool-Based LLM Framework for ATLAS Analysis

Speaker
Gordon Watts

17:27–17:45

Towards a Complete Search for New Physics: Active Learning in the 19-dimensional pMSSM

Speaker
Jonas Wurzinger

17:45–18:03

Comparative study of Tabular Foundation Models for particle physics with the FAIR Universe HiggsML Dataset

Speaker
Ragansu Chakkappai

18:03